

SRMT

	Type	Hits	Search Text	DBs	Time Stamp
1	BRS	2	(sauder.in. or arthur.in. or dunbrack.in.) and bace	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:15
2	BRS	199	(sauder.in. or arthur.in. or dunbrack.in.) and alzheimer\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:16
3	BRS	148	S2 and structure	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:18
4	BRS	1106	(bace or memapsin or secretase or asp2) and alzheimer\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:20
5	BRS	567	S4 and (crystal or silico or model)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:19
6	BRS	421	S5 and inhibitor	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:20
7	BRS	85	S6 and (bace or memapsin or secretase or asp2).ab.	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 13:23
8	BRS	19	tang.in. and memapsin	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 12:51
9	BRS	6	(chopra.in. or svenson.in. or annis.in. or akopian.in. or bard.in. or stahl.in. or somers.in.) and (bace or memapsin or (beta near2 secretase) or asp2 or asp-2)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 12:54
10	BRS	710	(crystal or (space adj group) or structur\$) and (bace or memapsin or (beta near2 secretase) or asp2 or asp-2)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 12:54
11	BRS	581	(crystal or (space adj group) or structur\$) and (bace or memapsin or (beta near2 secretase) )	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 13:12
12	BRS	423	(crystal or model or (space adj group)) and (bace or memapsin or (beta near2 secretase))	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 13:18
13	BRS	387	S12 and alzheimer	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 13:13
14	BRS	132	(crystal or (space adj group)) and (bace or memapsin or (beta near2 secretase))	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 13:18

SRAT

09/955,737 STN search strategy

(FILE 'HOME' ENTERED AT 13:20:47 ON 20 JAN 2005)

FILE 'REGISTRY' ENTERED AT 13:20:56 ON 20 JAN 2005

L1 0 S MEMAPSIN/CN  
E "MEMAPSIN"/CN 25  
L2 2 S E7 OR E9  
E "MEMAPSIN"/CN 25  
E "BETA SECRETASE"/CN 25  
E "BACE"/CN 25  
L3 5 S E5 OR E6 OR E7 OR E8 OR E9

FILE 'MEDLINE, AGRICOLA, CAPLUS, BIOSIS, EMBASE, WPIDS' ENTERED AT  
13:24:16 ON 20 JAN 2005

L4 111 S (L2 OR L3 OR MEMAPSIN OR BACE OR (BETA (W) SECRETASE)) AND (C  
L5 67 DUP REM L4 (44 DUPLICATES REMOVED)  
L6 42 S L5 AND INHIBITOR

=>

## IUBMB Enzyme Nomenclature

## EC 3.4.23.46

**Recommended Name:** memapsin 2

**Reaction:** Broad endopeptidase specificity. Cleaves Glu-Val-Asn-Leu† Asp-Ala-Glu-Phe in the Swedish variant of Alzheimer's amyloid precursor protein

**Other name(s):**  $\beta$ -secretase;  $\beta$ -site Alzheimer's amyloid precursor protein cleaving enzyme 1 (BACE1)

**Comments:** Suggested to be the major " $\beta$ -secretase" responsible for the cleavage of the  $\beta$ -amyloid precursor protein to form the amyloidogenic  $\beta$ -peptide that is implicated in the pathology of Alzheimer's disease. In peptidase family A1 but is atypical in containing a C-terminal membrane-spanning domain.

**Links to other databases:** [BRENDA](#), [EXPASY](#), [KEGG](#), [MEROPS](#), [SWISS-PROT](#), [ERGO](#), [PDB](#), CAS registry number:

**References:**

1. Turner, R.T., III, Koelsch, G., Hong, L., CAStenheira, P., Ghosh, A. and Tang, J. Subsite specificity of memapsin 2 ( $\beta$ -secretase): implications for inhibitor design. *Biochemistry* 40 (2001) 10001-10006. [PMID: [11513577](#)]

2. Hong, L., Turner, R.T., Koelsch, G., Shin, D., Ghosh, A.K. and Tang, J. Crystal structure of memapsin 2 ( $\beta$ -secretase) in complex with an inhibitor OM00-3. *Biochemistry* 41 (2002) 10963-10967. [PMID: [12206667](#)]

[EC 3.4.23.46 created 2003]

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Return to [EC 3.4.23 home page](#)

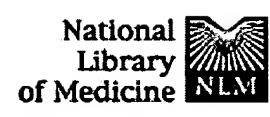
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- NLM Catalog
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<a href="#">#24</a>	Search <a href="#">#22</a> Limits: <b>Publication Date to 2000</b>	13:08:28	<a href="#">258</a>
<a href="#">#23</a>	Search Field: <b>All Fields</b> , Limits: <b>Publication Date to 2000</b>	13:08:03	<a href="#">13076585</a>
<a href="#">#22</a>	<b>Related Articles</b> for PubMed (Select <b>10873463</b> )	13:07:53	<a href="#">361</a>
<a href="#">#21</a>	Search <b>sauder bace</b>	13:07:50	<a href="#">1</a>
<a href="#">#15</a>	Search <a href="#">#14</a> Limits: <b>Publication Date to 2000</b>	13:06:25	<a href="#">45</a>
<a href="#">#14</a>	<b>Related Articles</b> for PubMed (Select <b>14501012</b> )	13:00:37	<a href="#">249</a>
<a href="#">#13</a>	Search <b>hong memapsin</b>	12:59:22	<a href="#">12</a>
<a href="#">#12</a>	<b>PubMed Links</b> for <b>Structure</b> (Select <b>25082</b> )	12:58:32	<a href="#">1</a>
<a href="#">#11</a>	<b>PubMed Links</b> for <b>Structure</b> (Select <b>20504</b> )	12:58:18	<a href="#">1</a>
<a href="#">#10</a>	<b>PubMed Links</b> for <b>Structure</b> (Select <b>14727</b> )	12:58:01	<a href="#">1</a>
<a href="#">#2</a>	Search <b>hegyi barrel</b>	10:36:10	<a href="#">3</a>
<a href="#">#1</a>	Search <b>hegyi</b>	10:34:39	<a href="#">396</a>

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Structure

PMC

Taxonomy

Boc

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Preview/Index

History

Clipboard

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<a href="#">#9</a> Search #4 or #5 or #6 or #7	12:57:33	<a href="#">10</a>
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<a href="#">#7</a> Search memapsin	12:56:41	<a href="#">7</a>
<a href="#">#6</a> Search beta-secretase	12:56:35	<a href="#">9</a>
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<a href="#">#4</a> Search bace	12:56:16	<a href="#">7</a>

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Preview/Index

History

Clipboard

Details

  Show: 20  

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Items 1 - 10 of 10

One page.

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The NCBI Structure group

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database

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 VAST Search  
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Inhibitor  
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- ☐ 3: [1W50](#) MMDB, Links  
Apo Structure Of Bace (Beta Secretase)  
[mmdbId:29720]
- ☐ 4: [1UJK](#) MMDB, Links  
Vhs Domain Of Human Gga1 Complexed With C-Terminal Phosphopeptide  
From Bace  
[mmdbId:27979]
- ☐ 5: [1UJJ](#) MMDB, Links  
Vhs Domain Of Human Gga1 Complexed With C-Terminal Peptide From  
Bace  
[mmdbId:27978]
- ☐ 6: [1SGZ](#) MMDB, Links  
Crystal Structure Of Unbound Beta-Secretase Catalytic Domain  
[mmdbId:27428]
- ☐ 7: [1PY1](#) MMDB, Links  
Complex Of Gga1-Vhs Domain And Beta-Secretase C-Terminal  
Phosphopeptide  
[mmdbId:25082]
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(1-16) Fragment Of The Beta-Amyloid Protein (Beta-App40, Beta-App42)  
In TfeWATER 8020 SOLUTION  
[mmdbId:21315]
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